IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Gregory S. HAMILTON et al.

3 1

Serial No.: 09/204,238

MULTIPLE HETEROATOM CONTAINING HETEROCYCLIC RING COMPOUNDS SUBSTITUTED WITH CARBOXYLIC ACIDS AND

ISOSTERES THEREOF

December 3, 1998

Examiner: Celia Chang

Group: 1612

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OCT 1 2 1999

TRANSMITTAL LETTER

TECH CENTER 1600/2900

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

Filed:

For:

Submitted herewith for filing in the U.S. Patent and Trademark Office is the following:

- (1) Transmittal Letter;
- (2) Second Supplemental Information Disclosure Statement;
- (3) PTO Form-1449; and
- (4) Thirty-seven (37) References Cited.

Please charge any required fee, or credit any overpayment, in connection with this matter to deposit Account No. 14-01112.

Respectfully submitted,

NATH & ASSOCIATES

Date: Ordober 8, 1999

Gary M. Nath

Reg. No. 26,965

Todd L. Juneau

Req. No. 40,669

NATH & ASSOCIATES

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Gregory S. HAMILTON et al.

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For: MULTIPLE HETEROATOM CONTAINING HETEROCYCLIC RING COMPOUNDS

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SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

Pursuant to Applicants' duty of disclosure under 37 C.F.R. \$1.56 and 1.97-1.99, the documents listed on the attached Form PTO-1449 are being brought to the attention of the Examiner in charge of the captioned application. No fee is included with this submission as it is being submitted before an Official Action on the merits has been mailed by the U.S. Patent and Trademark Office. Copies of the documents are attached herewith with a completed Form PTO-1449.

This second supplemental IDS cites references which are relevant to the proviso species of claim 1. For the Examiner's convenience, a copy of the provisos from claim 1 follow wherein the relevant Form PTO-1449 reference numbers [e.g. AC, BG, etc.] are

included in the parentheses after the corresponding proviso species.

Proviso from claim 1:

A. provided that:

 R_1 is not substituted with both hydroxy and oxygen to form carboxy [BG], or R_1 is not substituted with both alkoxy and oxygen to form alkoxycarbonyl,[BG, BH, BI] or R_1 is not substituted with both amine and oxygen to form amide;

B. further provided that:

when A is L_1 or L_2 , and D is a bond, then R_2 is not COOH, or an amide;

C. further provided that:

when A is L_1 , and R_1 is methyl, and D is a bond, then R_2 is not COOH [BE, BF, BJ];

D. further provided that:

[AH, AK];

when A is L_3 , and R_1 is phenyl, methylphenyl, phenylmethyl, substituted or unsubstituted phenoxyphenyl, substituted naphthyl, or methoxyphenyl, and D is a bond, then R_2 is not COOH [AK, AL, AJ, AO, BD, CD, CG] or an amide

E. further provided that:

when A is L_3 , and R_1 is phenyl, and D is a bond, then R_2 is not thiophenyl;

F. further provided that:

when A is L_3 , and R_1 is phenyl, and D is a bond, then R_2 is not an amide;

G. further provided that:

when A is L_3 , and R_1 is a substituted isoquinoline, and D is butyl,

then R_1 is not an amide [AA];

H. further provided that:

when A is L_3 or L_4 , and R_1 is unsubstituted or substituted phenyl, and D is C_1-C_3 alkyl or alkenyl,

then R_2 is not COOH, OH [AB, AD, AE, AF] or an amide;

J. further provided that:

when A is L_4 , and R_1 is phenyl, halo-substituted phenyl, dimethylphenyl, substituted butyl, or methylphenyl, and D is a bond,

then R_2 is not COOH [AM, AN, BA, BB, BC, BK, BL, BM, BN, BO, CA];

K. further provided that:

when A is L_4 , R_1 is a cyano-substituted alkyl, and D is a bond, then R_2 is not an amide **[AI]**;

The Examiner's attention is also drawn to the following IDS references containing biological information that the Examiner may find relevant for reviewing the subject matter of the present invention.

AA - Cerebral tissue disorder.

AG - CNS activity; schizophrenia, memory loss.

AI, AM, AN - central nervous system

Additional abstract references are disclosed herein which refer to chemical species that are deemed to be cumulative with respect to the relevant references noted above for the proviso species. These cumulative references are grouped by relevant proviso as follows:

CE, CF - Proviso D.

Additional references are disclosed herein which refer to species that are to be excluded from the scope of claim 1 by amendment. These additional references are AC, AG, CB, CC.

The Examiner is respectfully requested to cite the documents listed on the attached Form PTO-1449 in the next Office Action. In doing so, the Examiner is respectfully requested to initial in the space adjacent to the listing of each document on the Form PTO-1449, and return a copy of the initialed Form PTO-1449 with the next communication to Applicants, to confirm that these documents have been considered by the Examiner and made of record in this application.

Please contact the undersigned attorney by telephone should there be any questions or comments.

Respectfully submitted,

NATH & ASSOCIATES

Date: October 8,

Gary M. Math

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TECH CENTER 1600/2900

Attorney Docket No. AR138

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TRANSMITTAL LETTER

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

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- Transmittal Letter; (1)
- (2) Third Supplemental Information Disclosure Statement;
- (3) PTO Form-1449; and
- (4) Eighty-seven (87) References Cited.

Please charge any required fee, or credit any overpayment, in connection with this matter to deposit Account No. 14-01112.

Respectfully submitted,

funcai

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Gary M. Nath

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TECH CENTER 1600/2900 BOX PATENT Attorney Docket No. AR138X

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1449, and return a copy of the initialed Form PTO-1449 with the next communication to Applicants, to confirm that these documents have been considered by the Examiner and made of record in this application.

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Date: Oct. 8, 1999

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